

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Edouard Garcia on February 3, 2010.

The application has been amended as follows:

IN THE CLAIMS

Claim 1: Claim 1 (currently amended): A system for managing a plurality of distributed nodes of a network, comprising: a memory storing computer-readable instructions; and a processor coupled to the memory, operable to execute the instructions, and based at least in part on the execution of the instructions operable to perform operations comprising executing a network management module that causes the processor to launch migratory recovery modules into the network to monitor status of each of the network nodes; wherein each of the recovery modules is configured to: cause any given one of the network nodes to migrate the recovery module ~~node network~~ from the given network node to another one of the network nodes; cause any given one of the network nodes to determine a respective status of the given network node; and cause any given one of the network nodes to initiate a recovery process on the given network

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node in response to a determination that the given network node has one or more failed node processes wherein, in the executing, the network management module causes the processor to perform operations comprising, launching the recovery modules in order to determine the status of each of the network nodes and ~~wherein the executing the network management module causes the processor to~~, monitoring transmissions that are received from the recovery modules executing on respective ones of the network nodes in order to provide periodic monitoring of the status of each of the network nodes, and statistically identifying target ones of the network nodes that are needed to achieve a specified confidence level of network monitoring reliability, and launching the recovery modules into the network by transmitting respective ones of the recovery modules to the identified target network nodes.

Claim 5: A The system of claim 1, for managing a plurality distributed nodes of a network, comprising: first and second ones of the network nodes; wherein the first network node is operable to execute a recovery module that causes the first network node to migrate the recovery module from the first network node to the second network node, and in response to receipt of the recovery module from the first network node, wherein each of the recovery modules is configured to cause any given one of the network nodes causes the second network node to determine a the status of the second given network node in accordance with a heartbeat messaging protocol. and in response to a determination that the second network node has one or more failed

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~~processes, the recovery module causes the second network node to initiate a recovery process on the second network node.~~

Claim 11: Claim 11 (previously presented): A method for managing a plurality of distributed nodes of a network, comprising: (a) on a current one of the network nodes, determining a status of the current network node; (b) in response to a determination that the current network node has one or more failed node processes, initiating a recovery process on the current network node; (c) after initiating the recovery process, migrating from the current network node to a successive one of the network nodes; and (d) repeating (a), (b), and (c) with the current network node corresponding to the successive network node for each of the nodes in the network; and (e) on a respective one of the network nodes: determining a number of the recovery modules needed to achieve a specified network monitoring service level; statistically identifying target ones of the network nodes to achieve a specified confidence level of network monitoring reliability; and transmitting the determined number of the recovery modules to the identified target network nodes.

Claim 20: A computer-readable persistent storage medium comprising a computer code program for managing a plurality of distributed nodes of a network, the computer code program comprising computer- readable instructions that, when executed by respective processors, cause the respective processors to perform a method comprising: implement a management module and recovery modules; wherein the

management module is operable to cause at least one of the processors to perform operations comprising statistically identifying target ones of the network nodes that are needed to achieve a specified confidence level of network monitoring reliability, and launching the recovery modules into the network by transmitting respective ones of the recovery modules to the identified target network nodes; wherein each of the recovery modules is operable cause at least one of the processors to perform operations comprising migrating the ~~recovery module computer program~~ from one network node to a series of successive network nodes, determining a status of a current one of the network nodes to which the ~~recovery module computer program~~ has migrated,; in response to a determination that the current network has one or more failed node processes, initiating a recovery process on the current network node; and after initiating the recovery process on the current network node, migrating from the current network node to a successive one of the network nodes.

Claim 22: The computer-readable persistent storage medium of claim 21, wherein the operating environment on each of the network nodes provides each of the recovery modules with access to status monitoring resources, recovery resources, and native operative system resources that are available at each of the network nodes.

Claim 28: Cancelled.

Claim 29: Cancelled.

Allowance

2. Claims 1-9, 11-25, 27 & 30 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASGHAR BILGRAMI whose telephone number is (571)272-3907. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia L.M. Dollinger can be reached on 571-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. B./
Examiner, Art Unit 2443

/Tonia LM Dollinger/
Supervisory Patent Examiner, Art Unit 2443